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EXAMINER

KLIMOWICZ, WILLIAM JOSEPH

ART UNIT

PAPER NUMBER

2627

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/802,868	Applicant(s) IIDA, HIROYUKI	
	Examiner William J. Klimowicz	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4 and 6-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4 and 6-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Status

Claims 1, 2, 4 and 6-11 are currently pending.

Claims 3 and 5 have been canceled.

Drawings

The corrected drawings filed on June 11, 2009 are approved by the Examiner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4, 6, 7 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagai et al. (JP 08-031128 A) in view of Tsubouchi (JP 2002-166401 A).

As per claim 1, Nagai et al. (JP 08-031128 A) discloses a sliding member (1) comprising a slidable substrate (1) and a pressure-sensitive adhesive layer (2) (e.g., see, *inter alia*, enclosed English-machine translation of Nagai et al. (JP 08-031128 A) at paragraph [0032]) provided on one side thereof, wherein the slidable substrate (1) is a porous form having has a porosity of 20-70% (e.g., see, *inter alia*, enclosed English-machine translation of Nagai et al. (JP 08-031128 A) at paragraph [0027], etc.) and comprises an ultrahigh molecular weight polyethylene (e.g., see,

Art Unit: 2627

inter alia, enclosed English-machine translation of Nagai et al. (JP 08-031128 A) at paragraph [0035, 0036], etc.).

As per claim 2, wherein the slidable substrate (1) has a coefficient of friction of 0.2 or lower - see Table 1 (e.g., see, *inter alia*, enclosed English-machine translation of Nagai et al. (JP 08-031128 A) at paragraph [0049]).

As per claim 4, wherein the ultrahigh molecular weight polyethylene has a molecular weight of 500,000 or higher (e.g., see, *inter alia*, enclosed English-machine translation of Nagai et al. (JP 08-031128 A) at paragraph [0011]).

As per claim 1, however, Nagai et al. (JP 08-031128 A) does not expressly disclose a barrier layer is provided between the slidable substrate (1) and the pressure-sensitive adhesive layer (2).

Such barrier layers provided between porous substrate and adhesive layers, in order to prevent the migration of adhesive into the porous substrates, are well known in the laminate art, however.

As just one example, Tsubouchi (JP 2002-166401 A) discloses a laminate wherein a barrier layer (2) is provided between a porous substrate (1) and an adhesive layer (3) in order to expressly and explicitly “prevent[] an adhesive from infiltration into a surface of a porous substrate.” See abstract of Tsubouchi (JP 2002-166401 A).

As per claim 6, wherein the barrier layer (2) comprises a thermoplastic resin (e.g., see, *inter alia*, enclosed English-machine translation of Tsubouchi (JP 2002-166401 A) at paragraph [0031]).

Art Unit: 2627

Given the express teachings and motivations, as espoused by Tsubouchi (JP 2002-166401 A), as is also well known and established in the laminate art, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a barrier layer between the slidable substrate (1) and the pressure-sensitive adhesive layer (2) of Nagai et al. (JP 08-031128 A), in the express and explicit manner as taught and suggested by Tsubouchi (JP 2002-166401 A).

The rationale is as follows: one of ordinary skill in the art would have been motivated to provide a barrier layer between the slidable substrate (1) and the pressure-sensitive adhesive layer (2) of Nagai et al. (JP 08-031128 A), in the express and explicit manner as taught and suggested by Tsubouchi (JP 2002-166401 A) in order to expressly and explicitly “prevent[] an adhesive from infiltration into a surface of a porous substrate.” See abstract of Tsubouchi (JP 2002-166401 A).

The resultant combination of Tsubouchi (JP 2002-166401 A) with Nagai et al. (JP 08-031128 A), would produce Nagai et al. (JP 08-031128 A), as per claim 11, wherein one side of the barrier layer is adjacent to one side of the pressure-sensitive adhesive layer (2) and the other side of the barrier layer is adjacent to one side of the slidable substrate (1) - since Tsubouchi (JP 2002-166401 A) expressly teaches providing the barrier layer (2) between the adhesive layer and the porous substrate to minimize the adhesive from infiltrating the porous substrate.

Additionally, as per claim 7, although Nagai et al. (JP 08-031128 A) in view of Tsubouchi (JP 2002-166401 A), remains silent with respect to wherein the thermoplastic resin has a melt viscosity of 5-500 kPa.s, the Examiner maintains that it would have been obvious to one of ordinary skill in the art at the time of the instant invention to satisfy the claimed range(s)

Art Unit: 2627

and/or dimension(s), particularly in light of the teachings of Tsubouchi (JP 2002-166401 A) as applied to Nagai et al. (JP 08-031128 A) as a whole, through routine optimization/experimentation. “[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.” *In re Aller*, 105 USPQ 233, 235 (CCPA 1955).

Additionally, with respect to the particular claimed ranges, given the teachings and suggestions of Tsubouchi (JP 2002-166401 A) as applied to Nagai et al. (JP 08-031128 A) for providing a thermoplastic resin barrier layer between a porous substrate and an adhesive layer, using the teachings of Tsubouchi (JP 2002-166401 A) as a demonstrative template, it would have been within the skill of one having ordinary skill in the art to routinely modify the particular viscosity when forming the layer of the thermoplastic barrier layer in the course of routine optimization/experimentation and thereby obtain various standard optimized relationships including those set forth in claim 7 as nothing more than a ***predictable variation*** based the on the overarching teachings of Tsubouchi (JP 2002-166401 A), as just a manner in which to simply control the flow application rate of the barrier layer formed of thermoplastic resin.

Additionally, the law is replete with cases in which when the mere difference between the claimed invention and the prior art is some range, variable or other dimensional limitation within the claims, patentability cannot be found.

It furthermore has been held in such a situation, the Applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range. *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Art Unit: 2627

Moreover, the instant disclosure does not set forth evidence ascribing unexpected results due to the claimed dimensions. See *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338 (Fed. Cir. 1984), which held that the dimensional limitations failed to point out a feature which performed and operated any differently from the prior art.

No new or unobvious result is seen to be obtained, given the express teachings and motivations of the applied prior art, and as such, the claimed ranges are seen, absent any unobvious evidence, as nothing more than a ***predictable variation*** based the on such overarching and pertinent teachings of Tsubouchi (JP 2002-166401 A), in light of the general knowledge of an artisan having ordinary skill in the art, with the express rationale provided *supra*. See *KSR Int'l Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Apr. 30, 2007).

Moreover still, the Supreme Court opined “[w]hen a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a ***predictable variation***, § 103 likely bars its patentably.” (Emphasis added) 127 S. Ct. 1727, 1740.

The Examiner finds this situation analogous to the optimization of a range or other variable within the claims that flows from the “normal desire of scientists or artisans to improve upon what is already generally known.” *In re Peterson*, 315 F.3d 1325, 1330 (Fed. Cir. 2003) (determining where in a disclosed set of percentage ranges the optimum combination of percentages lies is *prima facie* obvious). As noted above, in *In re Aller*, 220 F.2d 454, 456 (C.C.P.A. 1955), it was held that the discovery of an optimum value of a variable in a known process is usually obvious. See also *In re Boesch*, 617 F.2d 272, 276 (C.C.P.A. 1980) (“[D]iscovery of an optimum value of a result effective variable in a known process is ordinarily

Art Unit: 2627

within the skill of the art.”); *In re Geisler*, 116 F.3d 1465, 1470 (Fed. Cir. 1997) (“[I]t is not inventive to discover the optimum or workable ranges by routine experimentation.” (quoting *Aller*, 220 F.2d at 456)); *In re Kulling*, 897 F.2d 1147, 1149 (Fed. Cir. 1990) (finding no clear error in Board of Patent Appeals and Interferences’ conclusion that the amount of eluent to be used in a washing sequence was a matter of routine optimization known in the pertinent prior art and therefore obvious).

Claims 8 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagai et al. (JP 08-031128 A) in view of Tsubouchi (JP 2002-166401 A) as applied to claims 7 and 1, respectively above, and further in view of Nakanishi (JP 08-034959 A)

See the description of Nagai et al. (JP 08-031128 A) in view of Tsubouchi (JP 2002-166401 A), *supra*.

Nagai et al. (JP 08-031128 A) in view of Tsubouchi (JP 2002-166401 A) disclose all the features as set forth in the rejection, *supra*, except for the features set forth in claims 8-10.

Such claimed features, as applied to barrier layers used in laminates are well known. As just one example, Nakanishi (JP 08-034959 A) further teaches providing a laminate in which a barrier layer (3) is provided between an adhesive layer (4) and a functional layer (2) to minimize the underlying adhesive layer (4) from impairing the functional layer (2), wherein, as per claim 9, wherein the barrier layer has a thickness of 0.01-0.5 mm (see abstract of Nakanishi (JP 08-034959 A)), wherein, as per claim 10, wherein the barrier layer (3) comprises polyethylene or polypropylene (e.g., see, *inter alia*, enclosed English-machine translation of Nakanishi (JP 08-034959 A) at paragraph [0007]).

Art Unit: 2627

Moreover still, as per claim 8, Nakanishi (JP 08-034959 A) further suggests using a crosslinked component of the thermoplastic resin layer to facilitate adherence between the barrier layer (3) and the functional layer (2) (e.g., see, *inter alia*, enclosed English-machine translation of Nakanishi (JP 08-034959 A) at paragraphs [0004] and [0007]).

Given the express teachings and motivations, as espoused by Nakanishi (JP 08-034959 A), it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the features set forth in claims 8-10, to the laminate combination of Nagai et al. (JP 08-031128 A) in view of Tsubouchi (JP 2002-166401 A), as exemplified and suggested by Nakanishi (JP 08-034959 A).

The rationale is as follows: one of ordinary skill in the art would have been motivated to provide the features set forth in claims 8-10, to the laminate combination of Nagai et al. (JP 08-031128 A) in view of Tsubouchi (JP 2002-166401 A), as exemplified and suggested by Nakanishi (JP 08-034959 A) in order to provide a well known barrier layer between the functional substrate and the adhesive, to minimize infiltration of the adhesive into the functional layer, while also promoting sufficient adherence between the barrier layers the layers of the laminate.

Response to Arguments

Applicant's arguments filed June 11, 2009 have been fully considered but they are not persuasive.

The Applicant alleges at page 11 of the response filed on June 11, 2009:

Art Unit: 2627

Applicant respectfully submits that the rejection of claims 1, 2, 4, 6, 7, and 11 under 35 U.S.C. § 103(a) are improper because the rationale supporting the Examiner's conclusion of obviousness fails to identify sufficient reason why one of ordinary skill in the art would be motivated to modify the invention in JP '128 to arrive at the present invention based on the teachings in JP '401 without using impermissible hindsight reasoning.

The Applicant also contends at page 12 of the response:

On the other hand, the present invention discloses that the thermoplastic resin is used as a barrier layer and it is generally used in the form of sheet. Thus, one of ordinary skill in the art would not be motivated to combine JP '128 and JP '401. Furthermore, even if, *arguendo*, there could be motivation, the combination of JP '128 with the teachings of JP '401 would not lead one of ordinary skill in the art would to arrive at the present invention.

The Examiner respectfully disagrees. More concretely, the Examiner maintains that there is indeed an expressly a “sufficient reason why one of ordinary skill in the art would be motivated to modify the invention in JP '128 to arrive at the present invention based on the teachings in JP '401 without using impermissible hindsight.”

Nagai et al. (JP 08-031128 A), as per the laminate structure of independent claim 1, discloses all features of the laminate invention, save a barrier layer provided between the slidable substrate (1) and the pressure-sensitive adhesive layer (2).

Such barrier layers provided between porous substrate and adhesive layers, in order to prevent the migration of adhesive into the porous substrates, are well known in the laminate art, however.

As just one example, Tsubouchi (JP 2002-166401 A) discloses a laminate wherein a barrier layer (2) is provided between a porous substrate (1) and an adhesive layer (3) in order to

Art Unit: 2627

expressly and explicitly “prevent[] an adhesive from infiltration into a surface of a porous substrate.” See abstract of Tsubouchi (JP 2002-166401 A), wherein the barrier layer (2) comprises a thermoplastic resin (e.g., see, *inter alia*, enclosed English-machine translation of Tsubouchi (JP 2002-166401 A) at paragraph [0031], wherein the term “acrylic resin” encompasses species of resins including thermoplastics resins).

Given the express teachings and motivations, as espoused by Tsubouchi (JP 2002-166401 A), as is also well known and established in the laminate art, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a barrier layer between the slidable substrate (1) and the pressure-sensitive adhesive layer (2) of Nagai et al. (JP 08-031128 A), in the express and explicit manner as taught and suggested by Tsubouchi (JP 2002-166401 A) in order to expressly and explicitly “prevent[] an adhesive from infiltration into a surface of a porous substrate.” See abstract of Tsubouchi (JP 2002-166401 A).

The Examiner maintains that the test for obviousness is not whether the features of one reference may be bodily incorporated into the other to produce the claimed subject matter, *but simply what the combination of references makes obvious to one of ordinary skill in the art*. As has been held in *In re Bozek*, 163 USPQ 545 (CCPA 1969), the test for obviousness is not whether the features of one reference may be bodily incorporated into the other to produce the claimed subject matter, but simply what the combination of references makes obvious to one having ordinary skill in the pertinent art. See also *In re Mapelsden*, 51 CCPA 1123, 329 F.2d 321, 141 USPQ 30 (1964); *In re Henley*, 44 CCPA 701, 239 F.2d 3, 112 USPQ 56 (1956); *In re Richman*, 165 USPQ 509 (CCPA 1970); *In re Van Beckum*, 169 USPQ 47 (CCPA 1971) and also *In re Sneed*, 710 F.2d 1544, 218 USPQ 385 (Fed. Cir. 1983).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Klimowicz whose telephone number is (571) 272-7577. The examiner can normally be reached on Monday-Friday (7:30AM-6:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H. Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2627

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William J. Klimowicz/
Primary Examiner, Art Unit 2627